

SECTION 10 70 00

EXTERIOR SUN CONTROL DEVICES

PART 1 GENERAL

Basic of Design is not intended to limit product selection. Contractor shall provide the product indicated or product of equal performance and quality.

1.1 DESCRIPTION

- A. Provide fixed Custom Sunshades as shown on the drawings, as specified, and as needed for a complete and proper installation.
- B. The drawings show the extent of the work, the dimensioned profile, depth and quantity of the sunshade to be provided.
- C. Related work specified elsewhere
 - 1. Metal Fabrication - 05500

1.2 SUBMITTALS

- A. Product Data: Submit specifications, data, and installation instructions from the manufacturer of the Sunshades.
- B. Submit shop drawings for the system. Show anchorage, details and connections for all the component parts.
 - 1. Drawings shall include elevations, sections and specific details for each unit, condition.
- C. Samples: Submit one sample minimum 24" long of each material to be utilized at each Sunshade with appropriate finish.
- D. Warranty: Provide written warranty to the owner that all screen products will be free of defective materials or workmanship for a period on one year from date of installation.
- E. Quality Assurance:
 - 1. Single subcontract responsibility: Subcontract the work to a single firm that has had not less than ten years experience in the design and manufacturing of work similar to that shown and required.
 - 2.2 Performance requirements: Design sunshades to accommodate local requirement for snow and wind loading. ****Provide engineering calculations to support design. Calculations to be by a registered engineer licensed in the state that the project is located. Analysis of Blade Deflection to be limited to L/120.**

PART 2 PRODUCTS

2.1 PRODUCTS

Basis of Design for the exterior Sun Control devices is:

Sunshades shall be Model 100-3 as manufactured by;

Construction Specialties, Inc.

Basis of Design is not intended to limit product selection.

Contractor shall provide the product indicated or product of equal performance and quality.

2.2 MATERIALS

A. Aluminum Extrusions: ASTM B211, Alloy 6063-T5.

B. Fasteners: Fasteners shall be aluminum or stainless steel. Provide types, gauges and lengths to suit unit installation conditions.

C. Anchors and Inserts: Use non-Ferrous metal or hot dip galvanized anchors and inserts for installation and elsewhere as required for corrosion resistance. Use stainless steel or lead expansion bolt devices for drill-in place anchors. Furnish inserts, as required, to be set into concrete or masonry work.

2.3 FABRICATION, GENERAL

A. Provide fixed Sunshades and accessories of design, material, sized, depth, arrangement, and thickness as indicated or as required for optimal performance with respect to strength; durability; and uniform appearance.

B. Include supports, anchorage, and accessories required for complete assembly.

2.4 SUNSHADE CONSTRUCTION

Components: All blades and outrigger components shall be 6063-T5 aluminum alloy.

1. Outriggers shall 1/4" custom profile flat aluminum plate members with front edge cut to match blade profile exactly.

2. Blades shall be 3" high, extruded aluminum airfoil design. Blades shall be factory assembled to outriggers using stainless steel, type F, thread cutting screws through internal screw slots in blades. **Welding is not acceptable. Blades must be removable in case of damage.**

Fasteners to be hex head.

3. Blades to be rotated 45 degrees from vertical and spaced to provide 70-degree sun cut off angle.

4. No Fascia is required.

5. Sunshade system to attach to Welded Steel Tab not by sunshade supplier.

2.5 ALUMINUM FINISH

A. General: Comply with NAAMM "Metal Finished Manual" for finish designations and application recommendations, except as otherwise indicated. Apply finishes in factory after products assembly. Protect finished on exposed surfaces prior to shipment. Remove scratches and blemishes from exposed surfaces which will be visible after completing finishing process.

Provide Dark Bronze color as indicated, as selected by Government from manufacturers standard Kynar 500 colors.

Fluorocarbon Coating: Inhibitive thermo-cured primer, 0.2 mil minimum dry film thickness, and thermo-cured fluorocarbon containing "Kynar 500" resin, 1.0 mil minimum dry film thickness.

Furnish manufacturers twenty (20) year limited warranty against failure of the Kynar 500 finish.

PART 3 EXECUTION

3.1 INSPECTION

A. Examine openings to receive the work. Do not proceed until any unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Comply with manufacturer's instructions and recommendations for installation of the work.

B. Verify dimensions of supporting structure at the site by accurate field measurements so that the work will be accurately designed, fabricated and fitted to the structure.

C. Anchor Sunscreen to building substructure as indicated on architectural drawings.

D. Erection Tolerances:

1. Variation from level: $\pm 1/8$ " maximum in any column to column space or 20'-0" runs, non-cumulative.

2. Offsets in end-to-end or edge-to-edge alignment of consecutive members $1/32$ ".

E. Corners: Miter sun control fascia assembly at outside corner as shown on drawings.

F. Cut and trim component parts during erection only with the approval of the manufacturer or fabricator, and in accordance with his recommendations. Restore finish completely. Remove and replace members where cutting and trimming has impaired the strength or appearance of the assembly as directed.

G. Do not erect warped, bowed, deformed or otherwise damaged or defaced members. Remove and replace any members damaged in the erection process as directed.

H. Set units level, plumb and true to line, with uniform joints.

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